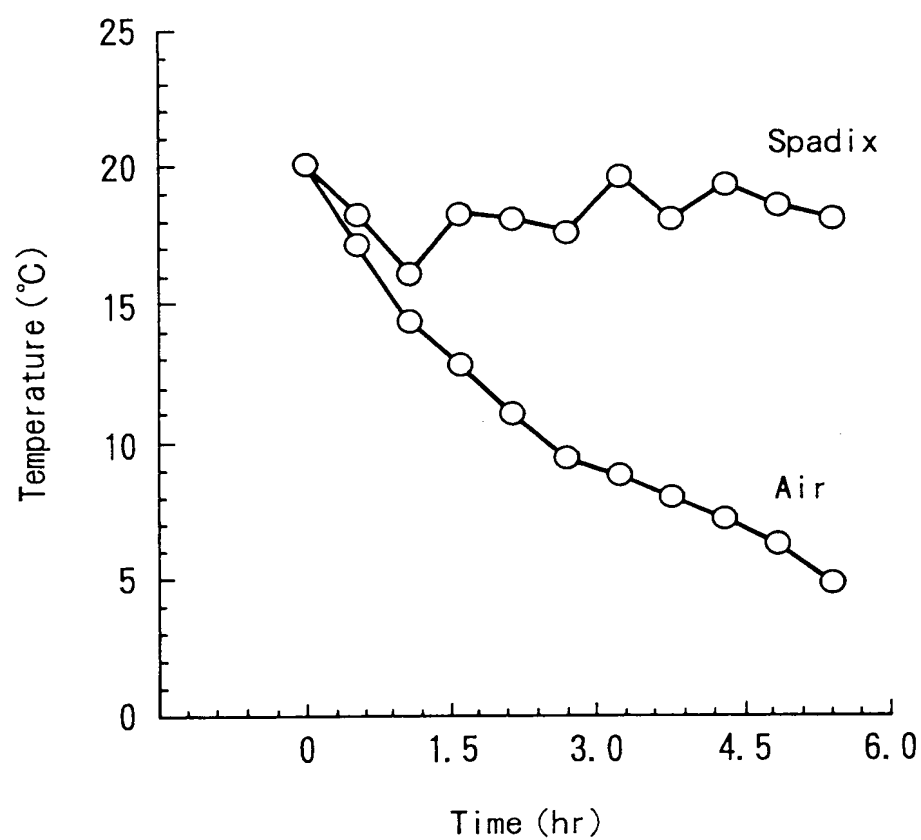
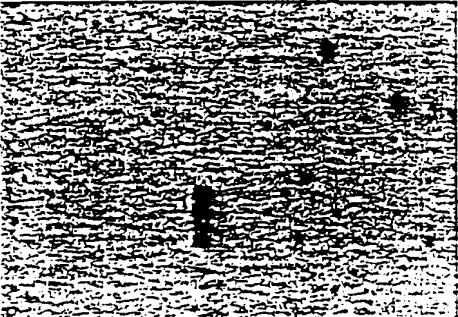


Fig. 1

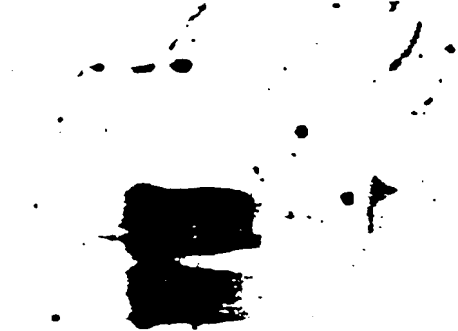


A

Spadix		Leaf	
RT	Cold	RT	Cold
			

← SfUCPa

B

Spadix		Leaf	
RT	Cold	RT	Cold
			

← SfUCPb

Figure 10. Expression of the *SfUCP* genes in *S. frugiperda*. **A:** Northern blot analysis of *SfUCPa* expression. **B:** Northern blot analysis of *SfUCPb* expression. **RT**, total RNA from the spadix; **Cold**, total RNA from the spadix stored at 4°C; **RT** and **Cold**, total RNA from the leaf. **18S** and **rRNA** are shown as loading controls.

Fig.3 Top

I

SfUCPA	1	--MGDHGPRTEISFAGSSR-AAFAACFAELCTI	PLDTAKVRLQLQKKAVTGDV-VALPKY	56
SfUCPB	1	--MGDHGPRTEISFAGSSR-AAFAACFAELCTI	PLDTAKVRLQLQKKAVTGDV-VALPKY	56
StUCP	1	MGGDHGGKSDISFAGIFASSAFAACFAEACTIP	LDLTAQVRLQLQKKAVEGCG-LALPKY	59
AtPUMP	1	---MVAAGKSDLSLPKTFACSAFAACVGEVCTIP	LDLTAQVRLQLQKSAFTLAGDVTLPKY	57
human UCP1	1	-MGGLTASDVHPTLGVQLFSAPIAACLAADVITP	LDLTAQVRLQVQGECP----TSSVIRY	55
human UCP2	1	-MVGFKATDVPPPTATVKFLGAGTAACIADLITP	PLDTAKVRLQIQGESQGPVRATASAQY	59
human UCP3	1	-MVGLKPSDVPPTMAVKFLGAGTAACFADLVTP	PLDTAKVRLQIQGENQ-AVQTARLLVQY	58

II

SfUCPA	57	RGMLGTVATIAREEGLSALWKGI	VPGGLHRQCLFGGLRIGLYEPVKSFYVG--DNFVGDIP	114
SfUCPB	57	RGMLGTVATIAREEGLSALWKGI	VPGGLHRQCLFGGLRIGLYEPVKSFYVG--DNFVGDIP	114
StUCP	60	RGLLGTVGTIAKEEGLASLWKGI	VPGGLHRQCIYGGLRIGHYEPVKNLYVG--KDHVGDVP	117
AtPUMP	58	RGLLGTVGTIAREEGLRSLWKGI	VPGGLHRQCLFGGLRIGHYEPVKNLYVFTGKDFVGDVP	117
human UCP1	56	KGVLGTTITAVVKTEGRMKLYSGL	PAGLQRQISSASLRIGLYDVTQVEFLTA---GKETAPS	112
human UCP2	60	RGVMGTILTMVRTEGPRSLYNGL	VAGLQRQMSEASVRIGLYDSVKQFYT-----KGSEHAS	115
human UCP3	59	RGVLGTTILTMVRTEGPCSPYNGL	VAGLQRQMSEASIRIGLYDSVKQVYTF---KCADNNS	115

Fig. 3 Middle

III

Accession	Protein	Gene	Species	Length	Score	E-value
115	SSfUCPA	LSKKILAGLTGALAIIVANPTD	human	171	171	171
115	SSfUCPB	LSKKILAGLTGALAIIVANPTD	human	171	171	171
118	StUCP	LSKKILAAALTTGALGITIANPTD	human	174	174	174
118	AtPUMP	LSKKILAGLTGALGIMVANPTD	human	176	176	176
113	human UCP1	LGSKILAGLTGGAVFIGQPT	human	168	168	168
116	human UCP2	IGSRLLAGSTTGALAVACQ	human	170	170	170
116	human UCP3	LTTRILAGCTTGAMAVTCAQ	human	173	173	173

IV

SfUCPA	172	GLGALWTGLGPN	IARN	AI	I	NA	AE	LA	SY	DQ	VK	QK	TIL	KLP	GF	SD	NI	F	TH	I	LA	G	--	LG	AG	FFA	229							
SfUCPB	172	GLGALWTGLGPN	IARN	AI	I	NA	AE	LA	SY	DQ	VK	QK	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	203								
StUCP	175	GVRALWTGLGPN	IGRN	AI	I	NA	AE	LA	SY	DQ	VK	EA	VL	R	IP	GF	TD	N	V	TH	LA	G	--	LG	AG	FFA	232							
AtPUMP	177	GVRALWTVLGP	NVARN	AI	I	NA	AE	LA	SY	DQ	VK	ET	I	L	K	IP	GF	TD	N	V	TH	IL	SG	LF	TC	AG	FFA	236						
human UCP1	169	GLTGLWKGTTP	NLRS	VI	I	NC	TE	LV	TY	D	LM	KE	AF	V	K	NN	I	L	AD	OV	P	CH	LV	SA	--	LI	AG	FCA	226					
human UCP2	171	GFRGLWKGTSP	NVARN	AI	V	N	CA	EL	V	TY	D	L	I	K	D	AL	L	K	AN	LM	T	DD	LP	CH	FT	SA	--	FC	AG	FCT	228			
human UCP3	174	GVRGLWKGTLP	NIMRN	AI	V	N	CA	EL	V	TY	D	I	L	K	E	K	L	D	Y	H	LL	T	D	N	F	P	CH	FT	SA	--	FC	AG	FCA	231

A

Fig. 3 Down

VI

Accession	Species	Gene	Protein	Length	Score	E-value
230	SfUCPA	VCIGSPVDVVKSRM	AYKSTFDCFIKILKNDGLLAFYKGFIPNFGRLG	285	1.0	1.0
204	SfUCPB	-----MKSRM	AYKSTFDCFIKILKNDGPLAFYKGFIPNFGRLG	250	1.0	1.0
233	StUCP	VCIGSPVDVVKSRM	AYKNTLDCFVKTLKNDGPLAFYKGFIPNFGRLG	288	1.0	1.0
237	AtPUMP	VCIGSPVDVVKSRM	AYKGTIDCFVKTLKSDGPHAFYKGFIPNFGRLG	295	1.0	1.0
227	human UCPI	TAMSSPVDVVKTRH	INSPPGQYKSVENCAMKVF TNEGPTAFKGLVPSFLRLG	284	1.0	1.0
229	human UCP2	TVIASPVDVVKTRH	MSALGQYSSAGHCAL TMLQKEGPRAFYKGFMP SFLRLG	286	1.0	1.0
232	human UCP3	TVVASPVDVVKTRH	MSPPGQYFS2 LDCMIKIVAQEGPTAFYKGF T P SFLRLG	289	1.0	1.0

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PMBD

SfUCPA	286	MFLTLEQVRKFFIKVVPN-----	303
SfUCPB	251	MFLTLEQVRKFFIKVVPN-----	268
StUCP	289	MFLTLEQAKFVKSLSP-----	306
AtPUMP	296	MFLTLEQAKKYVRELDASKRN--	316
human UCP1	285	MFVCFEQLKRELKSRQTHDCAT	307
human UCP2	289	MFVTYEQLKRALLMAACTSREAPF	309
human UCP3	290	MFVTYEQLKRALLMKVQMLRESPP	312

Fig.4

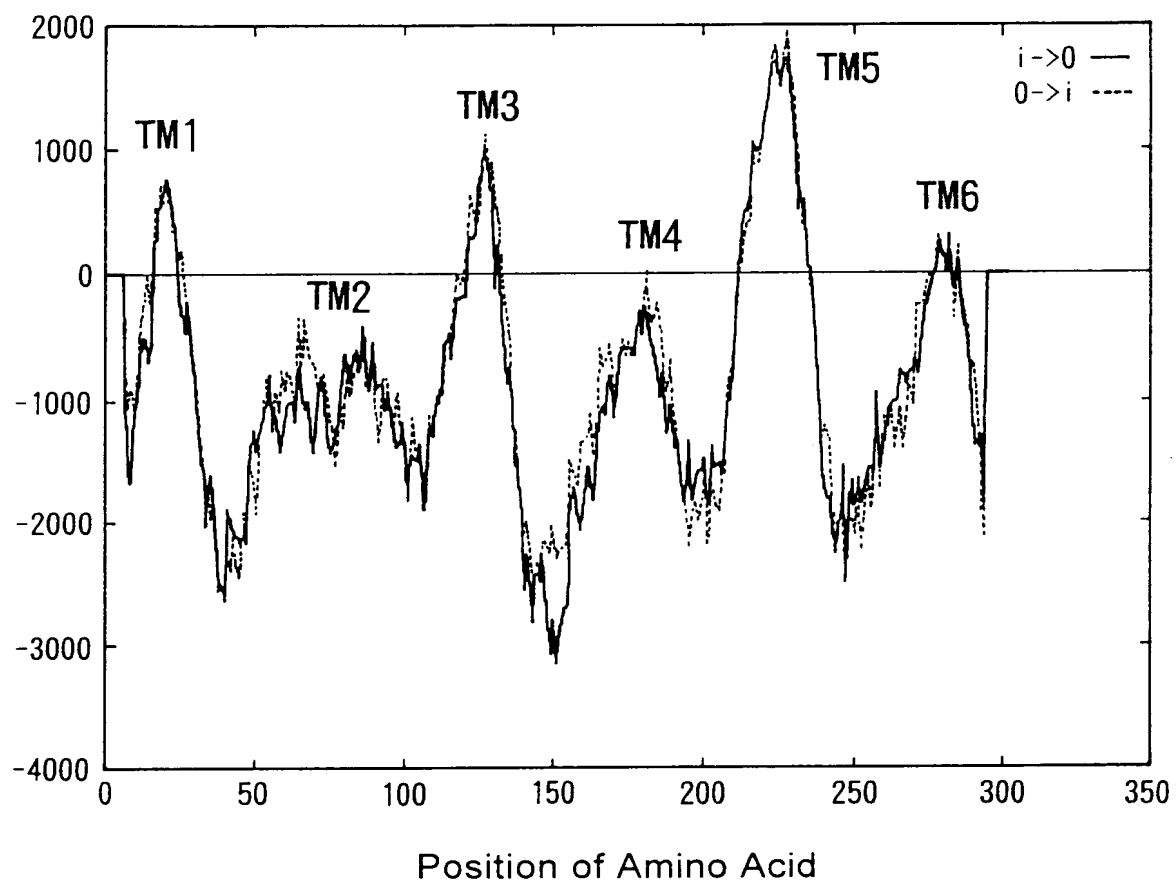


Fig.5

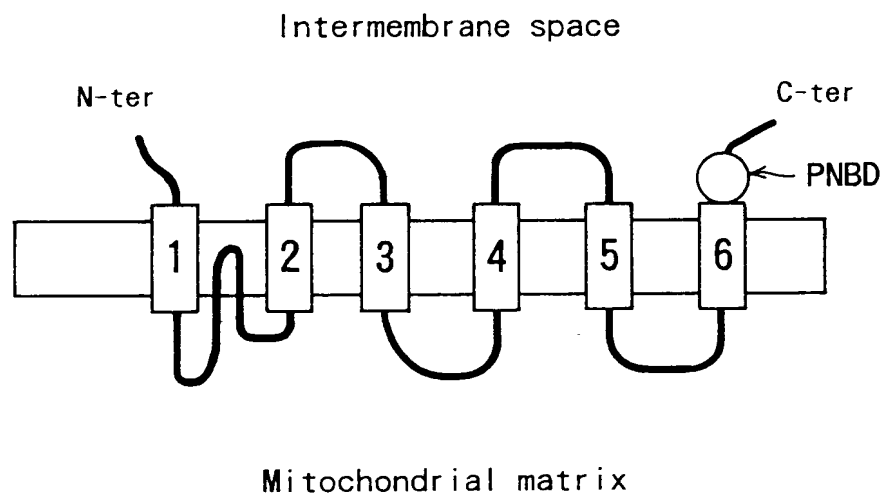


Fig.6

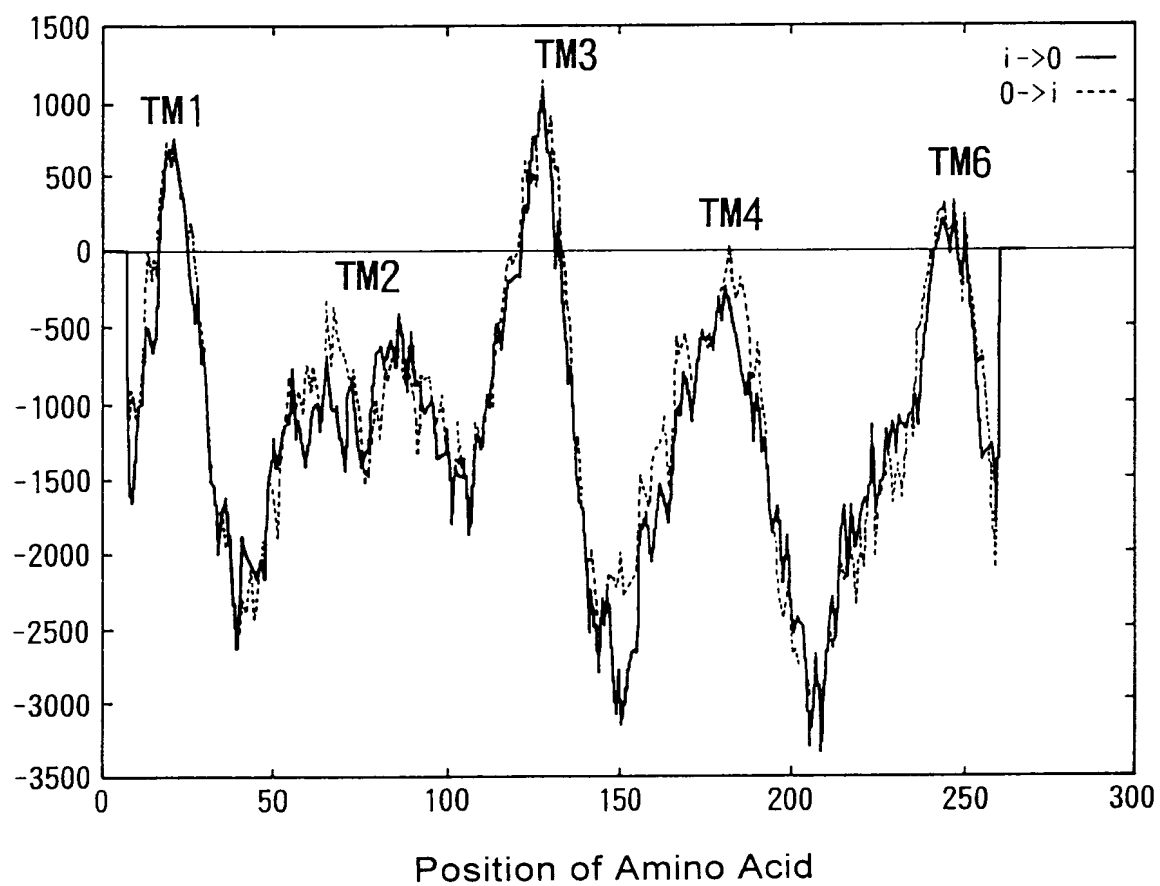


Fig. 7

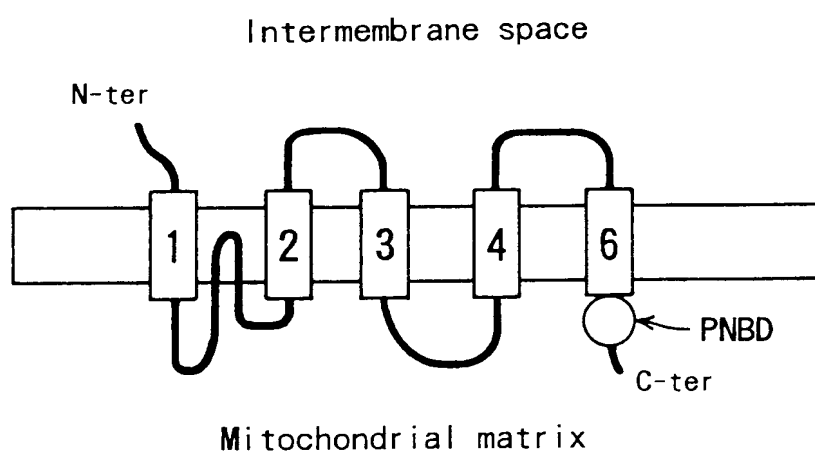


Fig.8

